



467120

ARCADIS
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315.446.9120
Fax 315.671.9450
www.arcadis-us.com

Mr. Keith Krawczyk
MDEQ-RRD-Superfund
Constitution Hall – 3rd Floor South
525 West Allegan Street
P.O. Box 30426
Lansing, Michigan 48909-7926

ENVIRONMENT

Subject:
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit
Landfill Gas Monitoring Program
Quarterly Report (2013 Quarter 1)

Date:
March 12, 2013

Dear Mr. Krawczyk:

On behalf of Georgia-Pacific LLP (Georgia-Pacific), this letter presents results from the 2013 first quarter post-closure landfill gas monitoring event conducted on February 21, 2013 at the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site King Highway Landfill Operable Unit 3 (KHL OU) located in Kalamazoo, Michigan. The February 2013 monitoring event reflects continued quarterly monitoring activities performed consistent with the current version of the DRAFT FINAL Operations and Maintenance Plan (O&M Plan; ARCADIS 2013), on behalf of Georgia-Pacific. Consistent with previous landfill gas monitoring events, representatives from the Michigan Department of Environmental Quality (MDEQ) were present to observe the monitoring activities, which were performed by ARCADIS using a portable gas analyzer.

Monitoring results for the February 2013 event are presented in Table 1 and Figure 1; all monitoring results recorded to date are presented in Table 2 and Figure 2 (methane only).

Monitoring of the eight permanent landfill gas monitoring probes located within the property boundary (GW-1 through GW-4 and GW-11 through GW-14) resulted in methane detections at concentrations above the LEL in six of the eight gas probes (i.e., GW-1 through GW-4, GW-13, and GW-14). Note that gas probes GW-13 and GW-14 are located along the western side of the KHL. In addition, the storage shed located in the southwest corner of the KHL was monitored, which resulted in no detection of methane.

Monitoring of the nine permanent landfill gas monitoring probes located outside the landfill property boundary (GW-5 through GW-9 and GW-15 through GW-17) resulted

Contact:
Patrick McGuire

Phone:
315.671.9233

Email:
pat.mcguire@arcadis-us.com

Our ref:
B0064583.0004.00907

in no methane detections at concentrations above LEL in any of the eight gas probes. Gas probe GW-10 (also located outside of the landfill property boundary) was not monitored during this event, due to the low concentrations of methane detected in gas probes GW-5, GW-6, and GW-7 as verbally directed by MDEQ in the field.

In accordance with the current version of the O&M Plan, the gas vents were not monitored during this event, and will not be monitored during any future landfill gas monitoring events at the KHL.

Due to the detection of methane below the LEL in gas probes GW-5, GW-6, GW-7, GW-8, and GW-9 (located to the south of gas probes GW-1 and GW-2, beyond the landfill property boundary), no contingencies actions are required to address the elevated methane concentrations detected at these gas probes. Additionally, based on the location of gas probe GW-3 (i.e., adjacent to the Kalamazoo River), MDEQ agreed that contingency actions are not required to address the elevated methane concentrations detected at this gas probe.

One additional temporary borehole (BH-14-01) was installed approximately 15 feet to the west of gas probe GW-14 and monitored to delineate the extent of methane concentrations above the LEL to the west of GW-14 (see Figure 1 for temporary monitoring location). Monitoring results indicated that methane concentrations were below the LEL in temporary borehole BH-14-01. No temporary boreholes were installed outward of gas probe GW-13 to delineate the extent of methane above the LEL. As verbally indicated by MDEQ in the field, temporary boreholes were not installed outward of perimeter gas probes GW-13 and GW-14 due to ample amount of monitoring data collected during previous landfill gas monitoring events providing the methane gas concentrations along the western sideslope of the KHL.

Based on the methane gas concentrations detected in perimeter gas probes GW-13 and GW-14 and comments from MDEQ regarding the location of gas probe GW-15, an investigation plan will be prepared and submitted to MDEQ within 20 days of elevated methane gas detected during the February 2013 landfill gas monitoring activities (i.e., March 13, 2013). The investigation plan will provide the proposed locations for additional permanent perimeter gas probes to be installed to the north and west of gas probe GW-13, to the west of GW-14, and the relocation of gas probe GW-15 to the north of the utility corridor, along with monitoring of the newly installed gas probes for landfill gas concentrations. The results of the investigation plan will be used to prepare and implement a remediation plan within 60 days of the elevated methane gas detected during the February 2013 landfill gas monitoring activities, if elevated methane gas concentrations are detected at any of the newly installed perimeter gas probe locations.



Mr. Keith Krawczyk
March 12, 2013

It is anticipated that the next round of data collection (i.e., the 2013 second quarter landfill gas monitoring event) will be conducted in May 2013.

If you have any questions or comments, please do not hesitate to contact me at 315.671.9233.

Sincerely,

ARCADIS

A handwritten signature in black ink that reads "PKM".

Patrick McGuire
Principal Environmental Engineer

Attachments

Copies:

Garry Griffith, P.E., Georgia-Pacific LLC (transmitted via e-mail)
Michael Berkoff, USEPA Region 5
Steve Taplin, Terra Contracting, LLC (transmitted via e-mail)
Matt Johnson, Senior Civil Engineer, City of Kalamazoo
Roberta Welke, Southwest Region Engineer, Michigan Department of Transportation
Dawn Penniman, P.E., ARCADIS



Tables

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 1 - Summary of February 21, 2013 Post-Closure Landfill Gas Monitoring Results

Sample Location	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
GW-1	53.5	41.7	0.1	4.7
GW-2	26.1	21.7	0.0	52.2
GW-3	19.0	7.5	1.5	72.0
GW-4	60.0	37.0	0.0	3.0
GW-5	0.1	7.4	10.7	81.8
GW-6	0.1	2.7	18.7	78.5
GW-7	0.1	1.7	20.7	77.5
GW-8	0.1	5.7	13.4	80.8
GW-9	0.2	1.5	20.7	77.6
GW-10	--	--	--	--
GW-11	0.1	0.5	21.9	77.5
GW-12	0.2	2.0	20.2	77.6
GW-13	56.5	42.6	0.8	0.1
GW-14	14.3	2.9	3.3	79.5
GW-15	0.1	5.0	15.4	79.5
GW-16	0.1	3.1	19.4	77.4
GW-17	0.1	4.4	16.9	78.6
BH-14-01	0.1	0.1	22.1	77.7
Storage Shed	0.0	0.1	16.9	83.0

Notes:

1. Landfill gas monitoring results provided by ARCADIS using a GEM™ 500 portable gas analyzer.
2. CH₄ = Methane.
3. CO₂ = Carbon Dioxide.
4. O₂ = Oxygen.
5. GW = Permanent gas monitoring probe.
6. BH = Temporary borehole.
7. -- = gas probe was not monitored due to low readings in GW-5, GW-6, and GW-7 as directed by MDEQ.
8. Shaded methane results exceed the associated lower explosive limit (5%).

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
GW-1	4/28/2003	46.3	42.9	1.9	8.9
GW-2	4/28/2003	47.2	29.5	4	19.3
GW-3	4/28/2003	74.1	19.1	0.6	6.3
GW-4	4/28/2003	47.1	39.9	2.6	10.4
BH-2	4/27/2003	52.3	46.8	0	0.9
BH-4	4/28/2003	17.8	8.8	9.8	63.6
BH-5	4/27/2003	2.8	5.2	15.2	76.8
BH-8	4/28/2003	55.4	43	0	1.6
BH-9	4/29/2003	26.6	33.2	2.2	38
BH-10	4/27/2003	0	0.7	18.6	80.7
BH-11	4/28/2003	0.3	4.3	13.3	82.1
BH-12	4/28/2003	0	0.3	20	79.7
BH-13	4/28/2003	0	1.3	19.3	79.4
BH-14	4/28/2003	0	1.9	17.7	80.4
BH-15	4/28/2003	9	4.3	9.7	77
BH-16	4/28/2003	0	1.4	18.7	79.9
BH-17	4/28/2003	0	0	20.5	79.5
BH-18	4/28/2003	1.3	0.7	19.7	78.3
GW-1	8/14/2003	49.6	43.7	1	5.7
GW-2	8/14/2003	59.2	35.2	0.9	4.7
GW-3	8/14/2003	48.6	30	1.6	19.8
GW-4	8/14/2003	41.4	43	0.2	15.4
BH-105	8/14/2003	46.8	43.6	0.8	8.8
BH-106	8/14/2003	4.1	16	2.1	77.8
BH-107	8/14/2003	29.6	27.9	2.9	39.6
BH-108	8/14/2003	1.8	11	10.6	76.6
BH-109	8/14/2003	3.6	3.2	15.3	77.9
BH-110	8/14/2003	0	1.1	18.9	80
BH-111	8/14/2003	0	9.3	6.6	84.1
BH-112	8/14/2003	27.6	29.6	0.9	41.9
BH-113	8/14/2003	31	26.2	3.7	39.1
BH-114	8/14/2003	0	1.1	18.6	80.3
BH-115	8/15/2003	36.2	25.9	1.9	36
BH-116	8/14/2003	0	5.1	11.4	83.5
BH-117	8/14/2003	0	1.6	17.3	81.1
BH-118	8/14/2003	31.2	34.3	1.5	33
BH-119	8/14/2003	33.5	26.5	4.4	35.6
BH-120	8/14/2003	3.8	7.2	14.4	74.6
BH-121	8/14/2003	0	0.1	19	80.9
BH-122	8/14/2003	0.6	0.8	18.9	79.7
GW-1	11/12/2003	56.9	42.4	0.5	0.2
GW-2	11/12/2003	65.9	33.4	0.5	0.2
GW-3	11/12/2003	68.7	28.1	3.1	0.1
GW-4	11/12/2003	59.2	34	6.7	0.1
V-1	11/12/2003	72.2	27.2	0.5	0.1
V-2	11/12/2003	51.9	28.7	4.5	14.9
V-3	11/12/2003	66.4	32.9	0.6	0.1
BH-202	11/12/2003	57.5	39.7	2.6	0.2
BH-203	11/12/2003	0.2	0.2	20.1	79.5
BH-204	11/12/2003	41.9	13.3	11	33.8
BH-205	11/12/2003	0.1	0	20.7	79.2
BH-206	11/12/2003	1.4	3.3	8.6	86.7
BH-207	11/12/2003	12.2	11.8	8.7	67.3
BH-208	11/12/2003	66	29.2	2.3	2.5
BH-209	11/12/2003	24.4	8.5	1.9	65.2
BH-210	11/12/2003	0.1	3	16.7	80.2
BH-211	11/12/2003	28.8	5.6	13.2	52.4
BH-212	11/12/2003	16.6	9.2	2.2	72
BH-213	11/13/2003	15.5	4.8	15.5	64.2
BH-214	11/12/2003	0.5	1.4	18.1	80
BH-215	11/12/2003	0.1	2.1	17.4	80.4
BH-216	11/12/2003	0	0	20.9	79.1
BH-217	11/12/2003	0	0.8	20.6	78.6
BH-218	11/12/2003	0	1.2	19.8	79

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
BH-219	11/12/2003	0	0	21.1	78.9
BH-220	11/12/2003	0	0	20.8	79.2
BH-221	11/12/2003	0.1	5.7	8.5	85.7
BH-222	11/12/2003	0	1.5	17.9	80.6
BH-223	11/12/2003	0	1.2	19.4	79.4
BH-230	11/12/2003	65.6	23.8	0.7	9.9
BH-231	11/12/2003	0.5	0.9	20.5	78.1
BH-232	11/12/2003	57.7	30.1	3.2	9
BH-233	11/12/2003	0.6	0.1	18.5	80.8
BH-234	11/12/2003	0.1	0.9	19.8	79.2
GW-1	12/8/2003	57.3	42.1	0.4	0.2
GW-2	12/8/2003	65.4	32.0	0.7	1.9
GW-3	12/8/2003	65.9	14.6	0.8	18.7
GW-4	12/8/2003	63.0	36.1	0.8	0.1
BH-301	12/8/2003	55.6	26.3	4.1	14.0
BH-302	12/8/2003	6.4	2.1	16.7	74.8
BH-303	12/8/2003	9.7	6.7	14.5	69.1
BH-304	12/8/2003	4.2	6.9	9.3	79.6
BH-305	12/8/2003	60.3	33.4	1.6	4.7
BH-306	12/9/2003	5.5	2.8	14.7	77.0
BH-307	12/8/2003	2.4	1.6	17.3	78.7
BH-312	12/8/2003	0	0.5	20.3	79.2
BH-313	12/8/2003	31.7	12.6	8.2	47.5
BH-314	12/8/2003	0	1.8	17.7	80.5
BH-315	12/9/2003	2.9	4.4	12.3	80.4
BH-316	12/8/2003	0	0.1	20.4	79.5
BH-317	12/8/2003	0	4.2	15.2	80.6
BH-318	12/8/2003	0	0.3	19.0	80.7
GW-1	2/24/2004	21.3	17.8	10.1	50.8
GW-2	2/24/2004	34.9	24	6.4	34.7
GW-3	2/24/2004	0.1	0	19.5	80.4
GW-3	2/24/2004	0	0	20.1	79.9
GW-4	2/24/2004	8	6.5	16.1	69.4
GW-4	2/24/2004	0	0	19.2	80.8
V-1	2/24/2004	0	0	20.1	79.9
V-2	2/24/2004	13.5	7.3	16	63.2
V-3	2/24/2004	39	20.3	10.1	30.6
BH-10	2/24/2004	19.4	12.1	16.6	51.9
BH-105	2/24/2004	19.1	8.1	9.9	62.9
BH-106	2/24/2004	3.1	1.3	17.8	77.8
BH-107	2/24/2004	15.3	12.4	9.3	63
BH-108	2/24/2004	2.1	1.8	16.4	79.7
BH-110	2/24/2004	15.2	11.7	4.9	68.2
BH-111	2/24/2004	7.6	5	11.1	76.3
BH-112	2/24/2004	0.6	2.2	18.4	78.8
BH-113	2/24/2004	0	2.3	15.9	81.8
BH-114	2/24/2004	0	0.5	18.3	81.2
BH-115	2/24/2004	0	0	19.9	80.1
BH-116	2/24/2004	0	0.7	16.8	82.5
BH-117	2/24/2004	0	0	19.6	80.4
BH-118	2/24/2004	0	0.1	19	80.9
BH-119	2/24/2004	20.6	7.7	10	61.7
BH-120	2/24/2004	2.4	7	13	77.6
BH-126	2/24/2004	33.1	16.5	14.3	36.1
BH-127	2/24/2004	19.5	10.8	13.9	55.8
BH-128	2/24/2004	0	0	19.9	80.1
BH-129	2/24/2004	42.3	26.2	15.7	15.8
BH-130	2/24/2004	1.3	0.6	19.2	78.9
BH-131	2/24/2004	54.9	32.3	12.6	0.2
BH-132	2/24/2004	0.8	0.4	18.3	80.5
BH-133	2/24/2004	0	0.7	19.5	79.8
GW-1	5/20/2004	51.3	32.3	0.1	16.3
GW-2	5/20/2004	62.0	37.3	0.5	0.2
GW-3	5/20/2004	69.2	30.2	0.4	0.2

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
GW-4	5/20/2004	54.7	45.1	0.1	0.1
V-1	5/20/2004	55.3	22.9	6.2	15.6
V-2	5/20/2004	54.0	30.0	4.3	11.7
V-3	5/20/2004	59.3	40.2	0.3	0.2
BH-208	5/20/2004	0.4	1.6	19.9	78.1
BH-209	5/20/2004	0.2	0.5	19.5	79.8
BH-210	5/20/2004	14.1	12.1	5.2	68.6
BH-211	5/20/2004	0.1	2.8	18.1	79.0
BH-212	5/20/2004	28.3	13.5	3.8	54.4
BH-213	5/20/2004	0.2	2.7	16.5	80.6
BH-214	5/20/2004	0.1	1.9	18.5	79.5
BH-215	5/20/2004	67.9	21.9	1.8	8.4
BH-216	5/20/2004	0	1.7	19.0	79.3
BH-217	5/20/2004	0	3.5	15.7	80.8
BH-218	5/20/2004	24.9	23.8	4.6	46.7
BH-219	5/20/2004	8.8	10.2	10.9	70.1
BH-220	5/20/2004	0.2	0.7	20.4	78.7
BH-221	5/20/2004	10.4	7.9	7.3	74.4
BH-222	5/20/2004	17.0	8.9	5.0	69.1
BH-223	5/20/2004	0	0.1	21.1	78.8
BH-224	5/20/2004	0	7.1	9.5	83.4
BH-225	5/20/2004	0	1.9	19.4	78.7
BH-226	5/20/2004	0	2.0	17.1	80.9
BH-227	5/20/2004	0	1.0	20.1	78.9
BH-228	5/20/2004	15.8	11.7	11.7	60.8
BH-229	5/20/2004	7.3	9.4	8.0	75.3
BH-230	5/20/2004	2.0	2.4	16.4	79.3
BH-231	5/20/2004	44.8	40.2	1.9	13.1
BH-232	5/20/2004	1.3	2.1	16.0	80.6
BH-233	5/20/2004	0	0.1	21.2	78.7
BH-234	5/20/2004	45.5	36.8	2.2	15.5
BH-235	5/20/2004	8.8	3.3	17.7	70.2
BH-236	5/20/2004	2.1	1.0	17.6	79.3
BH-237	5/20/2004	0.5	1.5	18.6	79.4
GW-1	9/29/2004	41.9	35.4	4.2	18.5
GW-2	9/29/2004	37.8	24.9	7.7	29.6
GW-3	9/29/2004	36.2	25.7	5.4	32.7
GW-4	9/29/2004	35.7	32.9	5.3	26.1
V-1-1	9/29/2004	27.4	22.2	10.4	40
V-2-1	9/29/2004	44.1	19.4	7.2	29.3
V-2-2	9/29/2004	33.7	20.4	9.7	36.2
V-4-1	9/29/2004	0	0.4	20.6	79
V-4-2	9/29/2004	0	0.3	20.6	79.1
V-4-3	9/29/2004	0	0	20.7	79.3
BH-101	9/29/2004	43.7	39.6	2.5	14.2
BH-102	9/29/2004	34.7	38.3	1.1	25.9
BH-103	9/29/2004	16.9	31.9	0.8	50.4
BH-104	9/29/2004	11.1	26.7	2.9	59.3
BH-105	9/29/2004	11.1	27.3	0.9	60.7
BH-106	9/29/2004	42.1	21.3	8.2	28.4
BH-107	9/29/2004	1.3	1.4	18	79.3
BH-108	9/29/2004	43.4	28.9	1	26.7
BH-109	9/29/2004	26.2	9.4	2.2	62.2
BH-110	9/29/2004	1.5	9.8	7.1	81.6
BH-111	9/29/2004	0	6.8	12.9	80.3
BH-112	9/29/2004	1.4	11.2	3.6	83.8
BH-113	9/29/2004	0.5	2.6	17.1	79.8
BH-114	9/29/2004	25.4	11.2	2.4	61
BH-201	9/29/2004	46.7	13.7	2.8	36.8
BH-202	9/29/2004	42.2	17.7	7.9	32.2
BH-203	9/29/2004	0	1.4	19.4	79.2
GW-1	12/16/2004	56.6	43.4	0	0
GW-2	12/16/2004	55.3	33.9	0	10.8
GW-3	12/16/2004	40.5	14.7	0.3	44.5

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
GW-4	12/16/2004	59.4	37.0	1.1	2.5
V-1-1	12/16/2004	60.7	38.9	0.4	0
V-2-1	12/16/2004	35.9	16.7	6.3	41.1
V-2-2	12/16/2004	46.8	22.4	6.8	24.0
V-4-1	12/16/2004	3.9	2.2	19.0	74.9
V-4-2	12/16/2004	0	0	20.4	79.6
V-4-3	12/16/2004	0	0	20.4	79.6
BH-101	12/16/2004	1.4	0.9	19.9	77.8
BH-102	12/16/2004	57.6	7.2	1.4	33.8
BH-103	12/16/2004	0	1.9	18.3	79.8
BH-104	12/16/2004	0	1.5	18.0	80.5
BH-105	12/16/2004	0.2	0.5	18.4	80.9
BH-106	12/16/2004	0	0.7	18.5	80.8
BH-107	12/16/2004	2.5	0.9	17.8	78.8
BH-201	12/16/2004	0	1.7	16.1	82.2
BH-202	12/16/2004	0.1	0.4	19.4	80.1
BH-203	12/16/2004	12.0	4.4	12.6	71.0
BH-204	12/16/2004	56.1	13.5	5.3	25.1
BH-205	12/16/2004	5.6	0.8	15.8	77.8
BH-301	12/16/2004	0	9.7	8.5	81.8
BH-401	12/16/2004	64.7	34.5	0.5	0.3
BH-402	12/16/2004	0.1	0.3	17.8	81.8
GW-1	3/15/2005	52.6	42.2	1.3	3.9
GW-2	3/15/2005	0.2	1.6	18.8	79.4
GW-3	3/15/2005	0	0	20.8	79.2
GW-4	3/15/2005	58.3	38.1	1.5	2.1
V-1-1	3/15/2005	20.4	11.2	15.2	53.2
V-2-1	3/15/2005	0	0	20.8	79.2
V-2-2	3/15/2005	5.3	1.8	19.3	73.6
V-4-1	3/15/2005	0	0.1	19.6	80.3
V-4-2	3/15/2005	2.7	1.6	19.0	76.7
V-4-3	3/15/2005	2.5	2.2	19.1	76.2
BH-101	3/15/2005	1.4	0.4	20.3	77.9
BH-104	3/15/2005	0.6	0.4	20.1	78.9
BH-105	3/15/2005	0	2.3	13.4	84.3
BH-107	3/15/2005	3.4	0.3	19.1	77.2
GW-1	5/26/2005	54.5	44.7	0.6	0.2
GW-2	5/26/2005	58.5	39.5	0.0	2.0
GW-3	5/26/2005	58.7	30.4	0.2	10.7
GW-4	5/26/2005	42.2	38.4	0.4	19.0
GW-5	5/26/2005	0.8	0.4	18.1	80.7
GW-6	5/26/2005	0.7	1.3	19.7	78.3
GW-7	5/26/2005	0.2	1.6	16.9	81.3
GW-8	5/26/2005	0.0	10.7	2.8	86.5
GW-9	5/26/2005	0.2	3.0	16.0	80.8
V-1-1	5/26/2005	12.2	7.9	17.1	62.8
V-2-1	5/26/2005	14.0	5.9	15.9	64.2
V-2-2	5/26/2005	23.3	13.0	12.6	51.1
V-3-1	5/26/2005	5.2	2.0	18.3	74.5
V-4-1	5/26/2005	3.6	4.1	16.0	76.3
V-4-2	5/26/2005	2.3	2.1	19.6	76.0
V-4-3	5/26/2005	1.6	2.4	18.7	77.3
BH-101	5/26/2005	1.2	2.4	18.3	78.1
BH-102	5/26/2005	0.6	1.1	15.4	82.9
BH-103	5/26/2005	0.0	0.9	19.3	79.8
BH-201	5/26/2005	10.9	6.4	15.4	67.3
BH-202	5/26/2005	0.3	1.0	18.8	79.9
BH-203	5/26/2005	0.4	1.2	12.8	85.6
BH-301	5/26/2005	3.0	6.1	12.7	78.2
BH-302	5/26/2005	4.3	11.0	73.9	10.8
BH-303	5/26/2005	3.8	9.4	11.7	75.1
BH-304	5/26/2005	0.0	0.4	20.0	79.6
GW-1	8/18/2005	51.0	44.8	0.3	3.9
GW-2	8/18/2005	53.3	36.9	1.5	8.3

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
GW-3	8/18/2005	52.6	33.9	0.0	13.5
GW-4	8/18/2005	48.2	45.1	0.0	6.7
GW-5	8/18/2005	40.0	13.8	0.3	45.9
GW-6	8/18/2005	51.9	43.7	0.0	4.4
GW-7	8/18/2005	0.0	3.8	16.5	79.7
GW-8	8/18/2005	5.8	10.1	0.2	83.9
GW-9	8/18/2005	0.0	7.2	12.5	80.3
GW-10	8/18/2005	0.0	12.9	4.8	82.3
GW-11	8/18/2005	0.0	18.9	2.7	78.4
V-1-1	8/18/2005	52.3	47.6	0.0	0.1
V-2-2	8/18/2005	39.5	26.8	6.5	27.2
V-3-1	8/18/2005	14.9	16.4	8.3	60.4
V-4-1	8/18/2005	14.1	18.0	8.1	59.8
V-4-2	8/18/2005	20.6	24.1	6.0	49.3
V-4-3	8/18/2005	17.5	19.9	9.2	53.4
BH-101	8/18/2005	59.9	20.8	0.1	19.2
BH-102	8/18/2005	44.4	40.2	0.7	14.7
BH-103	8/18/2005	0.0	3.1	17.9	79.0
BH-104	8/18/2005	12.3	4.0	14.3	69.4
BH-105	8/18/2005	0.0	2.6	18.1	79.3
BH-106	8/18/2005	0.0	1.0	20.6	78.4
BH-201	8/18/2005	22.0	21.8	0.5	55.7
BH-202	8/18/2005	0.0	12.2	9.0	78.8
BH-203	8/18/2005	22.4	9.7	12.9	55.0
BH-204	8/18/2005	26.7	18.9	2.9	51.5
BH-205	8/18/2005	0.8	2.2	0.7	96.3
BH-301	8/18/2005	16.8	23.1	0.7	59.4
BH-302	8/18/2005	0.0	10.9	7.1	82.0
BH-303	8/18/2005	25.3	23.0	0.5	51.2
BH-304	8/18/2005	11.4	15.0	3.1	70.5
BH-305	8/18/2005	0.1	11.3	9.4	79.2
BH-306	8/18/2005	0.0	6.4	16.1	77.5
BH-307	8/18/2005	0.0	5.5	17.5	77.0
BH-701	8/18/2005	0.0	3.1	18.3	78.6
BH-801	8/18/2005	0.0	1.2	20.4	78.4
BH-802	8/18/2005	0.0	1.9	19.8	78.3
BH-100	8/18/2005	0.0	7.4	12.1	80.5
BH-100	8/18/2005	0.0	0.5	20.5	79.0
BH-110	8/18/2005	0.0	3.6	18.2	78.2
BH-110	8/18/2005	0.0	10.2	11.6	78.2
GW-1	11/8/2005	53.2	45.3	0.2	1.3
GW-2	11/8/2005	41.8	30.6	3.2	24.4
GW-3	11/8/2005	6.2	8.0	14.5	71.3
GW-4	11/8/2005	48.8	39.0	0.4	11.8
GW-5	11/8/2005	24.5	12.6	0.2	62.7
GW-6	11/8/2005	53.6	39.4	0.4	6.6
GW-7	11/8/2005	0.0	3.2	16.8	80.0
GW-8	11/8/2005	0.0	13.4	0.6	86.0
GW-9	11/8/2005	0.0	3.8	15.4	80.8
GW-10	11/8/2005	0.0	9.5	7.0	83.5
GW-11	11/8/2005	0.0	12.1	6.0	81.9
BH-101	11/8/2005	27.0	13.8	5.3	53.9
BH-102	11/8/2005	26.0	32.5	0.3	41.2
BH-103	11/8/2005	0.0	2.1	17.4	80.5
BH-104	11/8/2005	0.0	8.1	7.6	84.3
BH-201	11/8/2005	22.5	23.5	0.4	53.6
BH-202	11/8/2005	0.0	6.2	13.8	80.0
BH-301	11/8/2005	0.0	18.4	1.7	79.9
BH-601	11/8/2005	5.4	12.2	0.4	82.0
BH-602	11/8/2005	0.0	3.5	15.8	80.7
V-1-1	11/8/2005	54.2	45.2	0.6	0.0
V-2-1	11/8/2005	10.0	6.9	14.5	68.6
V-2-2	11/8/2005	47.4	28.1	5.8	18.7
V-3-1	11/8/2005	5.6	2.0	18.9	73.5

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-4-1	11/8/2005	1.0	2.9	17.7	78.4
V-4-2	11/8/2005	0.0	0.0	20.5	79.5
V-4-3	11/8/2005	3.3	7.0	13.8	75.9
GW-1	2/8/2006	56.0	43.7	0.3	0.0
GW-2	2/8/2006	41.0	24.9	2.5	31.6
GW-3	2/8/2006	0.8	4.8	10.3	84.1
GW-4	2/8/2006	63.1	36.2	0.7	0.0
GW-5	2/8/2006	36.7	4.0	1.0	58.3
GW-6	2/8/2006	83.7	14.3	0.0	2.0
GW-7	2/8/2006	0.0	1.5	17.7	80.8
GW-8	2/8/2006	20.0	5.5	1.9	72.6
GW-9	2/8/2006	0.0	4.3	15.1	80.6
GW-10	2/8/2006	0.0	7.4	1.4	91.2
GW-11	2/8/2006	0.0	1.2	19.0	79.8
BH-201 ⁴	2/8/2006	6.1	4.2	13.3	76.4
BH-501	2/8/2006	0.1	1.0	16.1	82.8
BH-502	2/8/2006	0.0	0.2	17.9	81.9
BH-801	2/8/2006	0.0	4.4	15.5	80.1
BH-430	2/8/2006	32.9	18.1	3.5	45.5
BH-430	2/8/2006	34.2	22.9	0.0	42.9
BH-430	2/8/2006	7.6	7.9	11.9	72.6
BH-430	2/8/2006	0.7	0.4	17.3	81.6
V-1-1	2/8/2006	56.8	39.6	3.6	0.0
V-2-1	2/8/2006	16.2	6.5	15.8	61.5
V-2-2	2/8/2006	29.6	10.5	13.5	46.4
V-3-1	2/8/2006	2.8	0.7	20.5	76.0
V-4-1	2/8/2006	0.5	0.5	19.0	80.0
V-4-2	2/8/2006	0.0	0.1	19.0	80.9
V-4-3	2/8/2006	22.1	11.5	11.1	55.3
GW-1	5/8/2006	52.8	47.2	0.0	0.0
GW-2	5/8/2006	58.2	40.4	0.0	1.4
GW-3	5/8/2006	66.2	28.0	0.0	5.8
GW-4	5/8/2006	0.0	46.3	0.0	53.7
GW-5	5/8/2006	31.6	4.5	0.0	63.9
GW-6	5/8/2006	61.8	29.4	0.0	8.8
GW-7	5/8/2006	0.0	1.5	16.1	82.4
GW-8	5/8/2006	15.8	6.3	0.0	77.9
GW-9	5/8/2006	0.0	7.4	6.6	86.0
GW-10	5/8/2006	0.0	0.3	18.3	81.4
GW-11	5/8/2006	0.0	10.1	3.8	86.1
GW-12	5/8/2006	0.0	10.4	6.1	83.5
BH-201	5/8/2006	49.5	21.2	0.0	29.3
BH-202	5/8/2006	0.1	4.2	12.1	83.6
BH-301	5/8/2006	15.5	12.0	6.5	66.0
BH-302	5/8/2006	25.4	18.8	0.0	55.8
BH-303	5/8/2006	0.0	0.4	18.3	81.3
BH-304	5/8/2006	13.7	7.9	5.9	72.5
BH-305	5/8/2006	4.7	3.8	9.9	81.6
BH-306 ⁵	5/8/2006	--	--	--	--
BH-307	5/8/2006	9.0	11.1	0.0	79.9
BH-308 ⁵	5/8/2006	--	--	--	--
BH-309	5/8/2006	0.0	0.4	18.2	81.4
BH-310	5/8/2006	38.1	7.5	0.0	54.4
BH-311	5/8/2006	0.0	0.4	18.3	81.3
BH-312	5/8/2006	0.8	6.8	6.2	86.2
BH-501	5/8/2006	0.0	0.9	17.2	81.9
BH-502	5/8/2006	0.0	4.1	7.4	88.5
BH-601	5/8/2006	51.1	8.6	0.0	40.3
BH-801	5/8/2006	3.4	12.8	0.0	83.8
BH-802	5/8/2006	0.0	0.8	16.7	82.5
V-1-1	5/8/2006	52.3	46.7	0.0	1.0
V-2-1	5/8/2006	44.0	29.7	0.0	26.3
V-2-2	5/8/2006	53.5	23.9	5.5	17.1
V-3-1	5/8/2006	26.4	9.4	12.2	52.0

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-4-1	5/8/2006	0.0	0.0	20.3	79.7
V-4-2	5/8/2006	0.0	0.0	20.5	79.5
V-4-3	5/8/2006	0.0	0.1	20.1	79.8
V-4-4	5/8/2006	0.0	0.0	20.2	79.8
V-4-5	5/8/2006	0.0	0.8	19.0	80.2
V-4-6	5/8/2006	0.0	0.0	20.0	80.0
GW-1	9/7/2006	53.6	46.4	0.0	0.0
GW-2	9/7/2006	42.0	30.2	5.7	22.1
GW-3	9/7/2006	49.9	26.5	3.2	20.4
GW-4	9/7/2006	50.4	44.9	0.9	3.8
GW-5	9/7/2006	46.1	8.7	0.0	45.2
GW-6	9/7/2006	60.7	38.2	0.0	1.1
GW-7	9/7/2006	0.0	5.0	14.8	80.2
GW-8	9/7/2006	34.6	5.8	0.0	59.6
GW-9	9/7/2006	1.4	13.5	0.1	85.0
GW-10	9/7/2006	0.0	0.6	20.2	79.2
GW-11	9/7/2006	0.3	8.0	7.1	84.6
GW-12	9/7/2006	0.0	0.1	20.8	79.1
BH-201	9/7/2006	29.7	14.1	9.5	46.7
BH-202	9/7/2006	0.0	1.3	19.8	78.9
BH-301	9/7/2006	0.8	2.7	18.1	78.4
BH-302	9/7/2006	3.8	3.7	17.3	75.2
BH-303	9/7/2006	12.3	16.1	3.7	67.9
BH-304	9/7/2006	4.0	1.5	19.0	75.5
BH-305	9/7/2006	0.0	2.4	19.1	78.5
BH-501	9/7/2006	0.0	2.3	18.2	79.5
BH-502	9/7/2006	1.0	2.8	16.0	80.2
BH-601	9/7/2006	0.0	0.2	20.9	78.9
BH-801	9/7/2006	0.0	3.0	17.8	79.2
BH-802	9/7/2006	4.4	3.1	13.7	78.8
V-1-1	9/7/2006	30.7	28.6	8.7	32.0
V-2-1	9/7/2006	25.5	12.6	12.6	49.3
V-2-2	9/7/2006	18.6	11.3	14.1	56.0
V-3-1	9/7/2006	2.6	1.5	20.1	75.8
V-4-1	9/7/2006	0.0	0.1	20.8	79.1
V-4-2	9/7/2006	0.0	0.2	2.9	96.9
V-4-3	9/7/2006	0.0	0.0	20.8	79.2
V-4-4	9/7/2006	0.0	0.0	20.9	79.1
V-4-5	9/7/2006	0.0	0.1	20.8	79.1
V-4-6	9/7/2006	0.0	0.1	20.9	79.0
GW-1	11/8/2006	54.9	45.1	0.0	0.0
GW-2	11/8/2006	54.2	35.8	0.0	10.0
GW-3	11/8/2006	63.1	25.5	0.0	11.4
GW-4	11/8/2006	57.4	41.6	0.0	1.0
GW-5	11/8/2006	56.6	4.2	0.0	39.2
GW-6	11/8/2006	72.6	23.5	0.0	3.9
GW-7	11/8/2006	0.0	0.2	20.4	79.4
GW-8	11/8/2006	46.0	5.3	0.0	48.7
GW-9	11/8/2006	25.4	8.9	0.0	65.7
GW-10	11/8/2006	0.4	9.3	0.0	90.3
GW-11	11/8/2006	0.0	8.4	5.2	86.4
GW-12	11/8/2006	0.0	4.4	15.2	80.4
BH-201	11/8/2006	0.2	2.4	15.5	81.9
BH-301	11/8/2006	0.0	0.0	19.8	80.2
BH-501	11/8/2006	3.5	1.7	11.3	83.5
BH-502	11/8/2006	0.0	2.2	16.8	81.0
BH-801	11/8/2006	17.4	3.5	6.9	72.2
BH-802	11/8/2006	0.0	0.8	20.1	79.1
BH-901	11/8/2006	0.0	1.3	19.5	79.2
V-1-1	11/8/2006	54.9	43.8	0.0	1.3
V-2-1	11/8/2006	53.1	22.1	2.3	22.5
V-2-2	11/8/2006	51.4	27.2	0.0	21.4
V-3-1	11/8/2006	14.4	6.1	15.2	64.3
V-4-1	11/8/2006	17.4	15.2	9.9	57.5

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-4-2	11/8/2006	0.0	0.0	22.1	77.9
V-4-3	11/8/2006	5.8	8.3	13.1	72.8
V-4-4	11/8/2006	0.0	0.0	21.7	78.3
V-4-5	11/8/2006	0.0	0.1	21.7	78.2
V-4-6	11/8/2006	0.0	0.0	21.8	78.2
GW-1	2/8/2007	54.9	44.5	0.0	0.6
GW-2	2/8/2007	40.5	27.9	0.8	30.8
GW-3	2/8/2007	34.8	9.6	2.8	52.8
GW-4 ⁶	2/8/2007	60.5	39.5	0.0	0.0
GW-5	2/8/2007	49.9	3.3	0.0	46.8
GW-6 ⁷	2/8/2007	17.6	2.8	16.2	63.4
GW-7	2/8/2007	0.0	0.1	20.8	79.1
GW-8	2/8/2007	0.9	2.5	14.0	82.6
GW-9	2/8/2007	0.0	0.7	19.9	79.4
GW-10	2/8/2007	0.0	7.3	1.4	91.3
GW-11	2/8/2007	0.0	0.2	20.7	79.1
GW-12	2/8/2007	0.0	0.8	19.6	79.6
BH-201	2/8/2007	0.0	0.1	21.1	78.8
BH-501	2/8/2007	0.0	0.1	20.6	79.3
BH-502	2/8/2007	0.0	0.1	20.6	79.3
V-1-1	2/8/2007	23.5	17.7	11.8	47.0
V-2-1	2/8/2007	6.4	3.3	18.5	71.8
V-2-2	2/8/2007	18.6	8.5	15.1	57.8
V-3-1	2/8/2007	5.9	1.7	19.4	73.0
V-4-1	2/8/2007	0.0	0.0	20.8	79.2
V-4-2	2/8/2007	0.0	0.0	20.8	79.2
V-4-3	2/8/2007	0.1	0.2	20.0	79.7
V-4-4	2/8/2007	0.0	0.1	20.8	79.1
V-4-5	2/8/2007	0.0	0.0	20.8	79.2
V-4-6	2/8/2007	0.0	0.0	20.8	79.2
GW-1	5/10/2007	52.8	46.8	0.2	0.2
GW-2	5/10/2007	61.5	38.0	0.2	0.3
GW-3	5/10/2007	46.8	20.0	20.1	13.1
GW-4	5/10/2007	50.2	44.6	0.4	4.8
GW-5	5/10/2007	26.2	6.4	1.6	65.8
GW-6	5/10/2007	64.5	24.9	0.4	10.2
GW-7	5/10/2007	0.0	1.6	18.6	79.8
GW-8	5/10/2007	17.0	7.8	0.4	74.8
GW-9	5/10/2007	0.0	14.4	0.9	84.7
GW-10	5/10/2007	0.0	1.1	18.9	80.0
GW-11	5/10/2007	0.0	4.1	13.3	82.6
GW-12	5/10/2007	0.0	3.0	15.0	82.0
BH-201	5/10/2007	0.0	0.7	20.0	79.3
BH-301	5/10/2007	0.0	0.5	20.4	79.1
BH-501	5/10/2007	0.0	0.8	20.2	79.0
BH-502	5/10/2007	0.0	2.4	17.1	80.5
BH-801	5/10/2007	0.0	1.8	19.0	79.2
BH-802	5/10/2007	0.0	0.4	20.6	79.0
V-1-1	5/10/2007	57.0	42.4	0.1	0.5
V-2-1	5/10/2007	35.0	15.0	9.6	40.4
V-2-2	5/10/2007	33.7	18.4	8.2	39.7
V-3-1	5/10/2007	4.0	1.8	19.2	75.0
V-4-1	5/10/2007	14.6	19.7	6.4	59.3
V-4-2	5/10/2007	7.0	4.1	18.2	70.7
V-4-3	5/10/2007	0.3	2.0	16.0	81.7
V-4-4	5/10/2007	0.0	0.4	20.7	78.9
V-4-5	5/10/2007	0.0	2.8	17.2	80.0
V-4-6	5/10/2007	0.0	5.2	16.1	78.7
GW-1	8/8/2007	50.5	45.0	0.0	4.5
GW-2	8/8/2007	41.5	36.6	0.0	21.9
GW-3	8/8/2007	33.0	24.9	5.5	36.6
GW-4	8/8/2007	40.7	41.5	0.0	17.8
GW-5	8/8/2007	8.6	11.2	0.6	79.6
GW-6	8/8/2007	4.6	6.0	14.0	75.4

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
GW-7	8/8/2007	0.0	2.2	15.7	82.1
GW-8	8/8/2007	0.0	7.2	11.1	81.7
GW-9	8/8/2007	0.0	5.4	12.4	82.2
GW-10	8/8/2007	0.0	3.4	13.6	83.0
GW-11	8/8/2007	0.0	12.0	6.7	81.3
GW-12	8/8/2007	0.0	2.9	14.3	82.8
BH-201	8/8/2007	0.0	4.0	14.5	81.5
BH-301	8/8/2007	4.3	11.1	9.0	75.6
BH-501	8/8/2007	0.0	5.0	11.9	83.1
BH-502	8/8/2007	0.0	1.4	16.8	81.8
V-1-1	8/8/2007	51.8	47.2	0.0	1.0
V-2-1	8/8/2007	1.5	0.7	17.4	80.4
V-2-2	8/8/2007	41.4	28.0	5.5	25.1
V-3-1	8/8/2007	0.7	0.3	18.0	81.0
V-4-1	8/8/2007	0.0	0.0	18.3	81.7
V-4-2	8/8/2007	0.0	0.3	18.0	81.7
V-4-3	8/8/2007	0.0	0.2	18.0	81.8
V-4-4	8/8/2007	0.0	0.3	18.0	81.7
V-4-5	8/8/2007	0.0	13.4	6.4	80.2
V-4-6	8/8/2007	0.0	15.1	4.9	80.0
GW-1	10/31/2007	54.1	45.7	0.1	0.1
GW-2	10/31/2007	58.9	40.9	0.1	0.1
GW-3	10/31/2007	41.6	18.8	2.5	37.1
GW-4	10/31/2007	23.3	18.9	11.3	46.5
GW-5	10/31/2007	23.6	6.1	0.2	70.1
GW-6	10/31/2007	70.6	29.1	0.1	0.2
GW-7	10/31/2007	0.0	3.3	16.1	80.6
GW-8	10/31/2007	9.4	8.9	0.2	81.5
GW-9	10/31/2007	11.5	11.6	0.1	76.8
GW-10	10/31/2007	0.0	1.3	17.9	80.8
GW-11	10/31/2007	0.0	1.4	18.1	80.5
GW-12	10/31/2007	0.0	4.5	15.5	80.0
BH-201	10/31/2007	0.0	0.9	19.1	80.0
BH-301	10/31/2007	42.7	20.2	3.1	34.0
BH-302	10/31/2007	0.0	0.1	20.4	79.5
BH-501	10/31/2007	0.0	1.9	17.1	81.0
BH-502	10/31/2007	0.0	0.5	19.4	80.1
BH-701	10/31/2007	0.0	3.5	16.0	80.5
BH-801	10/31/2007	0.0	2.6	14.1	83.3
BH-802	10/31/2007	0.0	1.0	19.3	79.7
BH-901	10/31/2007	0.0	0.8	18.8	80.4
V-1-1	10/31/2007	54.9	45.0	0.1	0.0
V-2-1	10/31/2007	67.8	30.2	0.6	1.4
V-2-2	10/31/2007	59.3	31.5	1.8	7.4
V-3-1	10/31/2007	19.2	8.5	13.7	58.6
V-4-1	10/31/2007	0.0	0.0	20.4	79.6
V-4-2	10/31/2007	0.0	0.0	20.3	79.7
V-4-3	10/31/2007	0.0	0.0	20.4	79.6
V-4-4	10/31/2007	0.0	0.0	20.3	79.7
V-4-5	10/31/2007	0.0	0.0	20.4	79.6
V-4-6	10/31/2007	0.0	0.0	20.4	79.6
GW-1	2/14/2008	55.6	44.2	0.2	0.0
GW-2	2/14/2008	46.9	31.7	3.1	18.3
GW-3	2/14/2008	0.2	0.4	21.6	77.8
GW-4	2/14/2008	58.3	40.6	1.1	0.0
GW-5	2/14/2008	11.5	5.8	1.8	80.9
GW-6	2/14/2008	10.2	4.1	14.1	71.6
GW-7	2/14/2008	0.0	0.4	20.7	78.9
GW-8	2/14/2008	0.0	1.0	20.2	78.8
GW-9	2/14/2008	0.0	1.0	19.4	79.6
GW-10	2/14/2008	NA	NA	NA	NA
GW-11	2/14/2008	0.0	0.8	20.4	78.8
GW-12	2/14/2008	0.2	0.6	17.7	81.5
V-1-1	2/14/2008	20.4	18.7	12.9	48.0

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-2-1	2/14/2008	18.9	10.7	12.5	57.9
V-2-2	2/14/2008	24.8	12.8	14.7	47.7
V-3-1	2/14/2008	0.5	0.5	21.6	77.4
V-4-1	2/14/2008	0.0	0.1	21.4	78.5
V-4-2	2/14/2008	0.2	0.5	20.6	78.7
V-4-3	2/14/2008	0.9	1.5	19.9	77.7
V-4-4	2/14/2008	0.0	0.1	20.3	79.6
V-4-5	2/14/2008	0.0	0.4	20.1	79.5
V-4-6	2/14/2008	0.0	0.1	20.2	79.7
GW-1	5/15/2008	50.1	42.5	0.0	7.4
GW-2	5/15/2008	0.3	0.6	19.3	79.8
GW-3	5/15/2008	5.2	5.6	13.6	75.6
GW-4	5/15/2008	47.8	37.2	0.0	15.0
GW-5	5/15/2008	8.3	4.7	6.1	80.9
GW-6	5/15/2008	0.1	20.0	1.3	78.6
GW-7	5/15/2008	0.1	1.9	17.5	80.5
GW-8	5/15/2008	0.1	2.6	15.2	82.1
GW-9	5/15/2008	0.0	6.1	12.4	81.5
GW-10	5/15/2008	0.0	7.8	7.3	84.9
GW-11	5/15/2008	0.0	8.7	10.1	81.2
GW-12	5/15/2008	0.0	6.3	19.3	74.4
V-1-1	5/15/2008	54.4	43.8	0.0	1.8
V-1-2	5/15/2008	1.1	2.0	18.8	78.1
V-1-3	5/15/2008	0.0	0.0	20.1	79.9
V-1-4	5/15/2008	0.0	0.2	19.9	79.9
V-1-5	5/15/2008	0.1	0.0	20.1	79.8
V-1-6	5/15/2008	0.1	0.0	20.2	79.7
V-2-1	5/15/2008	1.9	3.6	15.9	78.6
V-2-2	5/15/2008	18.1	9.5	13.1	59.3
V-2-10	5/15/2008	0.1	0.0	19.8	80.1
V-3-1	5/15/2008	3.2	1.2	18.8	76.8
V-4-1	5/15/2008	0.0	0.0	20.1	79.9
V-4-2	5/15/2008	0.4	1.3	18.9	79.4
V-4-3	5/15/2008	0.1	0.8	19.3	79.8
V-4-4	5/15/2008	0.0	0.0	20.1	79.9
V-4-5	5/15/2008	0.0	0.0	20.1	79.9
V-4-6	5/15/2008	0.0	0.0	20.0	80.0
BH-201	8/6/2008	0.0	3.4	15.9	80.7
GW-1	8/6/2008	45.5	45.9	0.0	8.6
GW-2	8/6/2008	34.1	35.2	0.0	30.7
GW-3	8/6/2008	0.6	3.5	14.9	81.0
GW-4	8/6/2008	39.0	43.6	0.0	17.4
GW-5	8/6/2008	0.1	4.7	10.9	84.3
GW-6	8/6/2008	0.0	2.2	16.9	80.9
GW-7	8/6/2008	0.1	0.4	18.9	80.6
GW-8	8/6/2008	0.0	8.4	11.7	79.9
GW-9	8/6/2008	0.1	2.8	16.7	80.4
GW-10	8/6/2008	0.0	11.6	5.8	82.6
GW-11	8/6/2008	0.0	12.0	9.5	78.5
GW-12	8/6/2008	0.3	9.2	10.0	80.5
V-1-1	8/6/2008	51.4	47.7	0.0	0.9
V-1-2	8/6/2008	2.6	13.2	9.1	75.1
V-1-3	8/6/2008	0.2	0.3	19.7	79.8
V-1-4	8/6/2008	0.4	0.7	19.6	79.3
V-1-5	8/6/2008	0.3	0.9	19.3	79.5
V-1-6	8/6/2008	2.5	16.3	2.9	78.3
V-2-1	8/6/2008	29.7	16.7	8.6	45.0
V-2-2	8/6/2008	37.4	22.7	8.5	31.4
V-2-3	8/6/2008	0.2	0.1	19.6	80.1
V-2-10	8/6/2008	0.6	4.3	15.1	80.0
V-2-18	8/6/2008	0.1	0.4	19.6	79.9
V-3-1	8/6/2008	3.0	1.2	19.0	76.8
V-4-1	8/6/2008	0.0	0.3	19.7	80.0
V-4-2	8/6/2008	0.0	0.7	19.3	80.0

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-4-3	8/6/2008	0.0	0.2	19.7	80.1
V-4-4	8/6/2008	0.3	0.6	16.8	82.3
V-4-5	8/6/2008	0.3	0.4	19.7	79.6
V-4-6	8/6/2008	0.3	3.7	16.3	79.7
GW-1	11/5/2008	55.9	44.1	0.0	0.0
GW-2	11/5/2008	60.5	35.1	0.1	4.3
GW-3	11/5/2008	49.7	20.5	2.4	27.4
GW-4	11/5/2008	56.7	41.1	0.2	2.0
GW-5	11/5/2008	0.0	8.0	4.3	87.7
GW-6	11/5/2008	0.0	4.5	12.9	82.6
GW-7	11/5/2008	0.0	2.6	15.3	82.1
GW-8	11/5/2008	0.0	9.2	6.5	84.3
GW-9	11/5/2008	0.0	0.5	20.5	79.0
GW-10	11/5/2008	0.0	0.4	20.4	79.2
GW-11	11/5/2008	0.0	10.5	6.9	82.6
GW-12	11/5/2008	0.0	6.1	14.4	79.5
BH-201	11/5/2008	0.0	0.7	20.1	79.2
BH-301	11/5/2008	0.0	0.6	20.3	79.1
V-1-1	11/5/2008	55.8	44.2	0.0	0.0
V-1-2	11/5/2008	1.6	4.8	16.1	77.5
V-1-3	11/5/2008	0.0	0.1	20.5	79.4
V-1-4	11/5/2008	0.0	0.0	20.6	79.4
V-1-5	11/5/2008	0.0	0.3	20.3	79.4
V-1-6	11/5/2008	0.0	0.1	20.6	79.3
V-2-1	11/5/2008	50.9	22.1	5.9	21.1
V-2-2	11/5/2008	55.4	28.2	3.3	13.1
V-2-3	11/5/2008	0.1	0.2	20.7	79.0
V-2-10	11/5/2008	1.0	3.5	16.5	79.0
V-2-18	11/5/2008	0.0	0.0	21.0	79.0
V-4-1	11/5/2008	3.5	4.5	16.8	75.2
V-4-2	11/5/2008	4.2	8.8	12.4	74.6
V-4-3	11/5/2008	2.5	6.7	14.0	76.8
V-4-4	11/5/2008	0.0	0.0	21.1	78.9
V-4-5	11/5/2008	0.0	0.0	21.1	78.9
V-4-6	11/5/2008	0.0	0.0	20.8	79.2
GW-1	2/5/2009	56.5	39.5	4.0	0.0
GW-2	2/5/2009	0.1	0.2	19.4	80.3
GW-3	2/5/2009	0.1	0.2	19.7	80.0
GW-4	2/5/2009	0.0	0.2	19.0	80.8
GW-5	2/5/2009	0.1	4.0	11.3	84.6
GW-6	2/5/2009	0.1	0.6	18.4	80.9
GW-7	2/5/2009	0.1	0.3	19.5	80.1
GW-8	2/5/2009	0.1	4.2	16.2	79.5
GW-9	2/5/2009	0.1	1.5	18.4	80.0
GW-10	2/5/2009	0.1	0.2	19.7	80.0
GW-11	2/5/2009	0.1	0.3	18.4	81.2
GW-12	2/5/2009	0.1	0.6	17.6	81.7
V-1-1	2/5/2009	36.2	27.0	11.2	25.6
V-1-2	2/5/2009	1.2	1.9	19.0	77.9
V-1-3	2/5/2009	0.1	0.2	19.6	80.1
V-1-4	2/5/2009	0.1	0.2	19.7	80.0
V-1-5	2/5/2009	0.1	0.2	19.6	80.1
V-1-6	2/5/2009	0.1	0.3	19.6	80.0
V-2-1	2/5/2009	13.7	8.5	12.4	65.4
V-2-2	2/5/2009	16.4	9.1	13.0	61.5
V-2-3	2/5/2009	0.1	0.2	19.4	80.3
V-2-10	2/5/2009	0.1	0.2	19.2	80.5
V-2-18	2/5/2009	0.1	0.3	18.4	81.2
V-3-1	2/5/2009	1.9	0.8	16.5	80.8
V-4-1	2/5/2009	3.3	3.1	17.0	76.6
V-4-2	2/5/2009	0.9	1.1	17.9	80.1
V-4-3	2/5/2009	0.8	1.1	17.8	80.3
V-4-4	2/5/2009	0.1	0.2	18.0	81.7

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-4-5	2/5/2009	0.1	0.4	16.8	82.7
V-4-6	2/5/2009	0.1	1.2	17.4	81.3
GW-1	5/21/2009	52.6	46.1	0.4	0.9
GW-2	5/21/2009	48.8	36.5	0.4	14.3
GW-3	5/21/2009	13.5	6.3	10.6	69.6
GW-4	5/21/2009	52.1	46.5	0.5	0.9
GW-5	5/21/2009	0.0	7.5	6.8	85.7
GW-6	5/21/2009	0.0	3.9	11.1	85.0
GW-7	5/21/2009	0.0	1.8	16.7	81.5
GW-8	5/21/2009	0.0	6.1	12.0	81.9
GW-9	5/21/2009	0.0	2.6	16.6	80.8
GW-10	5/21/2009	0.0	7.7	6.9	85.4
GW-11	5/21/2009	0.0	14.0	6.3	79.7
GW-12	5/21/2009	0.0	2.6	15.4	82.0
BH-201	5/21/2009	0.1	0.7	18.5	80.7
BH-301	5/21/2009	0.0	0.2	19.2	80.6
V-1-1	5/21/2009	52.4	42.8	1.4	3.4
V-1-2	5/21/2009	0.0	0.0	19.4	80.6
V-1-3	5/21/2009	0.0	0.0	19.4	80.6
V-1-4	5/21/2009	0.0	0.0	19.3	80.7
V-1-5	5/21/2009	2.1	5.6	14.5	77.8
V-1-6	5/21/2009	0.0	0.0	19.1	80.9
V-2-1	5/21/2009	28.5	13.1	11.1	47.3
V-2-2	5/21/2009	28.0	13.1	11.8	47.1
V-2-3	5/21/2009	0.0	0.0	19.3	80.7
V-2-10	5/21/2009	0.0	0.0	19.6	80.4
V-2-18	5/21/2009	0.0	0.0	19.5	80.5
V-3-1	5/21/2009	3.2	0.9	18.8	77.1
V-4-1	5/21/2009	1.7	5.9	13.6	78.8
V-4-2	5/21/2009	0.0	0.0	19.4	80.6
V-4-3	5/21/2009	0.0	0.2	19.3	80.5
V-4-4	5/21/2009	0.0	0.0	19.6	80.4
V-4-5	5/21/2009	0.0	0.0	19.5	80.5
V-4-6	5/21/2009	0.0	0.0	19.6	80.4
GW-1	8/19/2009	52.6	46.0	0.4	1.0
GW-2	8/19/2009	56.7	39.9	0.5	2.9
GW-3	8/19/2009	46.5	25.5	3.4	24.6
GW-4	8/19/2009	31.3	37.8	0.1	30.8
GW-5	8/19/2009	0.0	10.7	7.7	81.6
GW-6	8/19/2009	0.0	1.6	16.1	82.3
GW-7	8/19/2009	0.0	4.3	13.1	82.6
GW-8	8/19/2009	0.0	6.1	10.8	83.1
GW-9	8/19/2009	0.0	4.2	13.5	82.3
GW-10	8/19/2009	0.0	0.6	17.6	81.8
GW-11	8/19/2009	0.0	5.9	11.8	82.3
GW-12	8/19/2009	0.1	13.4	4.0	82.5
BH-201	8/19/2009	0.0	1.2	17.4	81.4
BH-301	8/19/2009	0.0	1.5	17.8	80.7
V-1-1	8/19/2009	29.3	27.8	8.0	34.9
V-1-2	8/19/2009	10.3	11.9	11.3	66.5
V-1-3	8/19/2009	2.2	6.3	13.1	78.4
V-1-4	8/19/2009	0.0	0.1	19.2	80.7
V-1-5	8/19/2009	0.0	0.0	19.3	80.7
V-1-6	8/19/2009	0.0	0.0	19.3	80.7
V-2-1	8/19/2009	22.5	12.0	12.1	53.4
V-2-2	8/19/2009	39.6	23.5	6.9	30.0
V-2-3	8/19/2009	0.3	2.1	16.3	81.3
V-2-10	8/19/2009	0.5	2.7	15.5	81.3
V-2-18	8/19/2009	0.0	0.0	18.9	81.1
V-3-1	8/19/2009	1.9	1.0	18.3	78.8
V-4-1	8/19/2009	0.3	0.4	18.7	80.6
V-4-2	8/19/2009	0.0	0.0	18.9	81.1
V-4-3	8/19/2009	0.3	0.5	18.6	80.6
V-4-4	8/19/2009	0.2	0.4	17.9	81.5

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-4-5	8/19/2009	0.0	0.6	18.6	80.8
V-4-6	8/19/2009	0.3	11.5	8.5	79.7
GW-1	11/12/2009	56.9	43.0	0.1	0.0
GW-2	11/12/2009	56.6	37.8	0.0	5.6
GW-3	11/12/2009	4.5	5.6	11.7	78.2
GW-4	11/12/2009	60.0	39.8	0.2	0.0
GW-5	11/12/2009	0.0	9.3	5.7	85.0
GW-6	11/12/2009	0.0	1.7	17.0	81.3
GW-7	11/12/2009	0.0	3.6	16.3	80.1
GW-8	11/12/2009	0.0	5.4	13.4	81.2
GW-9	11/12/2009	0.0	1.8	18.5	79.7
GW-10	11/12/2009	0.0	3.2	14.0	82.8
GW-11	11/12/2009	0.0	1.4	18.5	80.1
GW-12	11/12/2009	0.0	4.0	16.6	79.4
BH-201	11/12/2009	1.7	5.0	14.6	78.7
V-1-1	11/12/2009	58.0	41.9	0.1	0.0
V-1-2	11/12/2009	0.9	3.3	17.8	78.0
V-1-3	11/12/2009	0.0	0.0	20.7	79.3
V-1-4	11/12/2009	0.0	0.1	20.5	79.4
V-1-5	11/12/2009	0.0	0.5	19.8	79.7
V-1-6	11/12/2009	0.0	0.1	20.4	79.5
V-2-1	11/12/2009	38.9	20.7	5.1	35.3
V-2-2	11/12/2009	43.6	21.8	7.0	27.6
V-2-3	11/12/2009	0.0	0.1	20.6	79.3
V-2-10	11/12/2009	0.7	0.7	19.7	78.9
V-2-18	11/12/2009	0.0	0.1	20.6	79.3
V-3-1	11/12/2009	1.6	0.7	20.0	77.7
V-4-1	11/12/2009	2.1	1.4	19.7	76.8
V-4-2	11/12/2009	0.0	0.1	20.6	79.3
V-4-3	11/12/2009	0.3	1.4	19.1	79.2
V-4-4	11/12/2009	0.0	0.1	20.6	79.3
V-4-5	11/12/2009	0.0	0.6	20.0	79.4
V-4-6	11/12/2009	0.0	0.1	20.5	79.4
GW-1	2/19/2010	0.7	0.9	20.3	78.1
GW-2	2/19/2010	0.0	0.2	20.6	79.2
GW-3	2/19/2010	44.9	15.9	0.0	39.2
GW-4	2/19/2010	45.5	38.1	0.6	15.8
GW-5	2/19/2010	0.0	0.2	19.4	80.4
GW-6	2/19/2010	0.0	0.0	20.2	79.8
GW-7	2/19/2010	0.0	0.0	20.5	79.5
GW-8	2/19/2010	0.0	0.5	19.0	80.5
GW-9	2/19/2010	0.0	0.8	19.8	79.4
GW-10	2/19/2010	0.0	0.0	20.1	79.9
GW-11	2/19/2010	0.0	0.0	20.4	79.6
GW-12	2/19/2010	0.0	0.0	20.6	79.4
BH-301	2/19/2010	0.0	0.0	20.3	79.7
V-1-1	2/19/2010	22.4	17.4	12.4	47.8
V-1-2	2/19/2010	0.3	1.3	18.8	79.6
V-1-3	2/19/2010	0.0	0.0	20.4	79.6
V-1-4	2/19/2010	0.0	0.0	20.5	79.5
V-1-5	2/19/2010	0.0	0.0	20.6	79.4
V-1-6	2/19/2010	0.0	0.0	20.6	79.4
V-2-1	2/19/2010	0.0	0.0	20.9	79.1
V-2-2	2/19/2010	0.0	0.0	19.8	80.2
V-2-3	2/19/2010	0.0	0.0	21.0	79.0
V-2-10	2/19/2010	0.0	0.0	21.0	79.0
V-2-18	2/19/2010	0.0	0.0	21.0	79.0
V-3-1	2/19/2010	0.0	0.0	21.0	79.0
V-4-1	2/19/2010	0.4	0.7	19.8	79.1
V-4-2	2/19/2010	0.0	0.0	20.6	79.4
V-4-3	2/19/2010	0.0	0.0	20.4	79.6
V-4-4	2/19/2010	0.0	0.0	20.6	79.4

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-4-5	2/19/2010	0.0	0.0	20.6	79.4
V-4-6	2/19/2010	0.0	0.0	19.4	80.6
GW-1	5/27/2010	52.4	47.4	0.2	0.0
GW-2	5/27/2010	57.2	42.5	0.3	0.0
GW-3	5/27/2010	47.7	22.1	4.8	25.4
GW-4	5/27/2010	31.8	34.0	0.1	34.1
GW-5	5/27/2010	0.1	1.0	17.3	81.6
GW-6	5/27/2010	0.3	0.6	19.7	79.4
GW-7	5/27/2010	0.1	1.7	15.3	82.9
GW-8	5/27/2010	0.1	4.3	13.2	82.4
GW-9	5/27/2010	0.0	1.8	17.8	80.4
GW-10	5/27/2010	0.0	0.4	20.1	79.5
GW-11	5/27/2010	41.3	24.2	0.0	34.5
GW-12	5/27/2010	0.0	1.4	17.7	80.9
BH-1101	5/27/2010	0.8	1.5	18.7	79.0
BH-1102	5/27/2010	51.2	42.6	4.2	2.0
BH-1103	5/27/2010	50.1	45.3	4.4	0.2
BH-1104	5/27/2010	28.2	19.2	8.2	44.4
BH-1105	5/27/2010	0.4	3.9	12.7	83.0
BH-1106	5/27/2010	42.2	49.5	2.4	5.9
BH-1107	5/27/2010	0.1	1.5	16.9	81.5
BH-1108	5/27/2010	51.7	47.7	0.6	0.0
BH-1109	5/27/2010	46.2	17.2	0.5	36.1
BH-1110	5/27/2010	0.2	0.6	9.9	89.3
BH-1111	5/27/2010	49.3	50.2	0.5	0.0
BH-1112	5/27/2010	2.1	11.6	9.4	76.9
BH-1113	5/27/2010	47.4	46.3	0.3	6.0
BH-1114	5/27/2010	0.0	4.7	15.3	80.0
V-1-1	5/27/2010	53.2	46.7	0.1	0.0
V-1-2	5/27/2010	12.0	13.4	12.9	61.7
V-1-3	5/27/2010	2.8	0.2	20.5	76.5
V-1-4	5/27/2010	0.1	0.1	20.6	79.2
V-1-5	5/27/2010	0.1	0.6	19.9	79.4
V-1-6	5/27/2010	0.1	0.0	20.7	79.2
V-2-1	5/27/2010	45.6	24.2	6.9	23.3
V-2-2	5/27/2010	34.2	17.6	9.5	38.7
V-2-3	5/27/2010	5.8	15.0	4.1	75.1
V-2-10	5/27/2010	3.4	7.7	15.5	73.4
V-2-18	5/27/2010	0.3	1.3	19.9	78.5
V-3-1	5/27/2010	2.8	1.0	19.7	76.5
V-4-1	5/27/2010	15.0	6.4	12.4	66.2
V-4-2	5/27/2010	0.0	0.3	20.2	79.5
V-4-3	5/27/2010	0.3	1.2	19.6	78.9
V-4-4	5/27/2010	0.6	1.9	19.6	77.9
V-4-5	5/27/2010	0.4	0.4	19.9	79.3
V-4-6	5/27/2010	0.6	3.0	15.3	81.1
GW-1	8/26/2010	50.5	49.5	0.0	0.0
GW-2	8/26/2010	26.5	26.5	5.5	41.5
GW-3	8/26/2010	39.3	25.4	2.2	33.1
GW-4	8/26/2010	38.8	46.2	0.0	15.0
GW-5	8/26/2010	0.2	2.4	17.0	80.4
GW-6	8/26/2010	0.2	0.9	19.6	79.3
GW-7	8/26/2010	0.3	0.9	19.7	79.1
GW-8	8/26/2010	0.2	8.8	13.9	77.1
GW-9	8/26/2010	0.3	2.2	18.7	78.8
GW-10	8/26/2010	0.2	1.1	18.6	80.1
GW-11	8/26/2010	0.2	20.3	2.5	77.0
GW-12	8/26/2010	0.3	0.3	20.3	79.1
BH-201	8/26/2010	3.4	2.7	18.0	75.9
BH-301	8/26/2010	0.2	0.9	19.0	79.9
V-1-1	8/26/2010	29.9	29.6	6.3	34.2
V-1-2	8/26/2010	0.1	0.2	20.2	79.5
V-1-3	8/26/2010	1.2	4.2	16.6	78.0
V-1-4	8/26/2010	0.2	0.5	20.0	79.3

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-1-5	8/26/2010	0.1	0.2	20.2	79.5
V-1-6	8/26/2010	0.0	0.1	20.2	79.7
V-2-1	8/26/2010	1.8	1.2	19.4	77.6
V-2-2	8/26/2010	18.8	11.3	14.0	55.9
V-2-3	8/26/2010	0.2	0.0	20.5	79.3
V-2-10	8/26/2010	0.2	0.0	20.4	79.4
V-2-18	8/26/2010	0.2	0.2	20.2	79.4
V-3-1	8/26/2010	0.3	0.1	20.4	79.2
V-4-1	8/26/2010	0.7	11.3	19.5	68.5
V-4-2	8/26/2010	0.2	0.4	20.4	79.0
V-4-3	8/26/2010	0.2	1.3	18.2	80.3
V-4-4	8/26/2010	0.2	0.0	20.6	79.2
V-4-5	8/26/2010	0.2	0.1	20.5	79.2
V-4-6	8/26/2010	0.3	0.0	20.5	79.2
GW-1	11/19/2010	48.7	41.1	1.5	8.7
GW-2	11/19/2010	46.2	36.1	0.0	17.7
GW-3	11/19/2010	0.0	8.7	11.2	80.1
GW-4	11/19/2010	34.8	35.6	0.0	29.6
GW-5	11/19/2010	0.0	11.3	6.9	81.8
GW-6	11/19/2010	0.0	3.8	15.5	80.7
GW-7	11/19/2010	0.0	2.4	18.2	79.4
GW-8	11/19/2010	0.0	7.1	14.2	78.7
GW-9	11/19/2010	0.0	1.8	18.9	79.3
GW-10	11/19/2010	0.0	0.3	19.7	80.0
GW-11	11/19/2010	0.0	9.5	9.0	81.5
GW-12	11/19/2010	0.0	0.0	20.0	80.0
BH-201	11/19/2010	0.0	1.5	18.7	79.8
V-1-1	11/19/2010	53.0	42.2	1.3	3.5
V-1-2	11/19/2010	1.0	1.2	17.3	80.5
V-1-3	11/19/2010	0.0	0.0	20.1	79.9
V-1-4	11/19/2010	0.0	0.0	20.1	79.9
V-1-5	11/19/2010	0.0	0.0	20.0	80.0
V-1-6	11/19/2010	0.0	0.0	20.0	80.0
V-2-1	11/19/2010	21.7	16.9	3.8	57.6
V-2-2	11/19/2010	37.5	18.4	9.3	34.8
V-2-3	11/19/2010	0.0	0.0	20.0	80.0
V-2-10	11/19/2010	0.0	0.0	20.0	80.0
V-2-18	11/19/2010	0.0	0.0	20.0	80.0
V-3-1	11/19/2010	2.8	1.0	19.2	77.0
V-4-1	11/19/2010	0.0	0.9	19.2	79.9
V-4-2	11/19/2010	0.0	0.3	19.5	80.2
V-4-3	11/19/2010	0.0	0.5	19.3	80.2
V-4-4	11/19/2010	0.0	0.0	20.0	80.0
V-4-5	11/19/2010	0.0	0.6	19.9	79.5
V-4-6	11/19/2010	0.0	0.0	20.1	79.9
GW-1	2/28/2011	56.5	43.3	0.0	0.2
GW-2	2/28/2011	0.0	0.3	19.3	80.4
GW-3	2/28/2011	6.4	4.2	14.4	75.0
GW-4	2/28/2011	1.5	2.5	17.6	78.4
GW-5	2/28/2011	0.0	0.2	19.3	80.5
GW-6	2/28/2011	0.0	0.0	19.7	80.3
GW-7	2/28/2011	0.0	1.6	17.2	81.2
GW-8	2/28/2011	0.0	0.9	17.8	81.3
GW-9	2/28/2011	0.0	0.0	19.3	80.7
GW-10	2/28/2011	0.0	0.0	19.2	80.8
GW-11	2/28/2011	11.0	5.0	0.6	83.4
GW-12	2/28/2011	0.0	0.0	19.8	80.2
V-1-1	2/28/2011	0.5	0.5	19.8	79.2
V-1-2	2/28/2011	0.1	0.5	20.3	79.1
V-1-3	2/28/2011	0.0	0.0	20.8	79.2
V-1-4	2/28/2011	0.0	0.0	20.8	79.2
V-1-5	2/28/2011	0.0	0.0	20.9	79.1
V-1-6	2/28/2011	0.0	0.0	20.9	79.1
V-2-1	2/28/2011	0.0	0.0	20.3	79.7

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-2-2	2/28/2011	0.0	0.0	20.0	80.0
V-2-3	2/28/2011	0.0	0.0	20.5	79.5
V-2-10	2/28/2011	0.0	0.0	20.6	79.4
V-2-18	2/28/2011	0.0	0.0	20.6	79.4
V-3-1	2/28/2011	0.0	0.0	20.1	79.9
V-4-1	2/28/2011	0.0	0.0	19.6	80.4
V-4-2	2/28/2011	0.0	0.0	19.8	80.2
V-4-3	2/28/2011	0.0	0.3	19.7	80.0
V-4-4	2/28/2011	0.0	0.0	19.8	80.2
V-4-5	2/28/2011	0.0	0.0	19.9	80.1
V-4-6	2/28/2011	0.0	0.0	19.9	80.1
GW-1	5/12/2011	47.6	48.7	0.1	3.6
GW-2	5/12/2011	48.7	35.1	0.0	16.2
GW-3	5/12/2011	0.1	5.2	12.9	81.8
GW-4	5/12/2011	56.8	43.1	0.0	0.1
GW-5	5/12/2011	0.0	8.1	10.0	81.9
GW-6	5/12/2011	0.0	1.4	19.4	79.2
GW-7	5/12/2011	0.0	2.3	18.2	79.5
GW-8	5/12/2011	0.0	2.6	17.0	80.4
GW-9	5/12/2011	0.0	2.2	18.3	79.5
GW-10	5/12/2011	0.0	0.2	20.7	79.1
GW-11	5/12/2011	0.0	8.1	12.6	79.3
GW-12	5/12/2011	0.1	0.0	20.7	79.2
BH-101	5/12/2011	0.0	0.4	20.2	79.4
BH-201	5/12/2011	11.6	7.1	13.8	67.5
BH-202	5/12/2011	0.0	0.1	20.8	79.1
V-1-1	5/12/2011	49.3	50.7	0.0	0.0
V-1-2	5/12/2011	0.0	0.0	20.9	79.1
V-1-3	5/12/2011	0.0	1.7	19.0	79.3
V-1-4	5/12/2011	0.0	0.0	21.0	79.0
V-1-5	5/12/2011	0.0	0.0	21.0	79.0
V-1-6	5/12/2011	0.0	0.0	21.0	79.0
V-2-1	5/12/2011	25.5	13.4	11.2	49.9
V-2-2	5/12/2011	36.4	20.3	8.7	34.6
V-2-3	5/12/2011	1.1	4.3	15.4	79.2
V-2-10	5/12/2011	0.7	1.8	17.2	80.3
V-2-18	5/12/2011	0.4	0.6	19.8	79.2
V-3-1	5/12/2011	0.9	0.3	20.5	78.3
V-4-1	5/12/2011	0.0	0.0	20.5	79.5
V-4-2	5/12/2011	0.2	0.1	20.8	78.9
V-4-3	5/12/2011	1.8	1.4	20.1	76.7
V-4-4	5/12/2011	0.1	0.2	20.5	79.2
V-4-5	5/12/2011	0.1	1.9	18.4	79.6
V-4-6	5/12/2011	0.1	2.5	18.1	79.3
GW-1	8/18/2011	52.9	46.7	0.4	0.0
GW-2	8/18/2011	54.8	44.9	0.1	0.2
GW-3	8/18/2011	28.2	19.3	5.4	47.1
GW-4	8/18/2011	47.9	46.3	1.1	4.7
GW-5	8/18/2011	0.0	17.1	5.0	77.9
GW-6	8/18/2011	0.0	0.5	22.1	77.4
GW-7	8/18/2011	0.0	2.0	22.1	75.9
GW-8	8/18/2011	0.0	1.4	21.3	77.3
GW-9	8/18/2011	0.0	2.4	21.2	76.4
GW-10	8/18/2011	0.0	0.4	22.9	76.7
GW-11	8/18/2011	6.5	24.7	0.3	68.5
GW-12	8/18/2011	0.0	11.8	10.3	77.9
BH-201	8/18/2011	3.0	14.5	6.5	76.0
BH-1101	8/18/2011	0.0	0.5	22.9	76.6
BH-V-4-1-1	8/18/2011	0.0	11.6	11.7	76.7
BH-V-4-1-2	8/18/2011	46.8	41.8	3.2	8.2
BH-V-4-1-3	8/18/2011	22.4	20.8	12.6	44.2
BH-V-4-1-4	8/18/2011	28.1	23.7	10.4	37.8
BH-V-4-1-5	8/18/2011	0.0	8.7	21.1	70.2
BH-V-4-1-6	8/18/2011	30.9	36.0	6.4	26.7

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
BH-V-4-1-7	8/18/2011	1.4	15.3	10.3	73.0
BH-V-4-1-8	8/18/2011	0.0	1.6	21.7	76.7
BH-V-4-1-9	8/18/2011	0.0	7.4	16.2	76.4
V-1-1	8/18/2011	49.6	50.1	0.2	0.1
V-1-2	8/18/2011	0.1	0.2	21.2	78.5
V-1-3	8/18/2011	19.6	6.8	14.6	59.0
V-1-4	8/18/2011	0.4	0.2	21.0	78.4
V-1-5	8/18/2011	0.2	1.1	19.3	79.4
V-1-6	8/18/2011	0.0	0.5	20.2	79.3
V-2-1	8/18/2011	26.3	13.1	14.3	46.3
V-2-2	8/18/2011	--	--	--	--
V-2-10	8/18/2011	0.5	2.6	17.6	79.3
V-2-18	8/18/2011	0.0	0.9	20.0	79.1
V-2-3	8/18/2011	0.0	0.0	21.5	78.5
V-3-1	8/18/2011	1.1	0.5	21.4	77.0
V-4-1	8/18/2011	19.9	27.9	2.6	49.6
V-4-2	8/18/2011	0.0	0.0	22.8	77.2
V-4-3	8/18/2011	0.0	0.2	22.5	77.3
V-4-4	8/18/2011	0.0	0.4	22.1	77.5
V-4-5	8/18/2011	0.0	1.0	19.0	80.0
V-4-6	8/18/2011	0.0	4.9	17.3	77.8
GW-1	11/17/2011	61.0	37.7	0.9	0.4
GW-2	11/17/2011	36.7	33.9	0.1	29.3
GW-3	11/17/2011	1.1	1.6	15.8	81.5
GW-4	11/17/2011	62.8	34.8	2.4	0.0
GW-5	11/17/2011	0.0	13.2	7.1	79.7
GW-6	11/17/2011	0.0	0.1	18.0	81.9
GW-7	11/17/2011	0.0	1.3	17.1	81.6
GW-8	11/17/2011	0.0	11.4	8.8	79.8
GW-9	11/17/2011	0.0	1.2	17.0	81.8
GW-10	11/17/2011	0.0	2.4	14.8	82.8
GW-11	11/17/2011	0.0	15.4	4.5	80.1
GW-12	11/17/2011	0.0	0.0	20.1	79.9
GW-13	11/17/2011	60.1	39.3	0.3	0.3
GW-14	11/17/2011	2.8	3.7	5.6	87.9
GW-15	11/17/2011	0.0	1.3	16.1	82.6
GW-16	11/17/2011	0.0	0.5	17.5	82.0
GW-17	11/17/2011	0.0	1.6	16.5	81.9
BH-201	11/17/2011	0.0	3.1	16.7	80.2
BH-1301	11/17/2011	0.0	0.0	17.9	82.1
V-1-1	11/17/2011	41.4	30.2	7.1	21.3
V-1-2	11/17/2011	1.2	2.6	17.2	79.0
V-1-3	11/17/2011	0.0	0.0	19.1	80.9
V-1-4	11/17/2011	0.0	0.0	19.1	80.9
V-1-5	11/17/2011	0.0	0.0	19.1	80.9
V-1-6	11/17/2011	0.0	0.0	18.4	81.6
V-2-1	11/17/2011	0.0	0.0	18.8	81.2
V-2-2	11/17/2011	11.3	5.5	15.9	67.3
V-2-3	11/17/2011	0.0	0.0	19.0	81.0
V-2-10	11/17/2011	0.0	0.0	19.0	81.0
V-2-18	11/17/2011	0.0	0.0	18.8	81.2
V-3-1	11/17/2011	0.0	0.0	18.9	81.1
V-4-1	11/17/2011	0.5	0.5	19.8	79.2
V-4-2	11/17/2011	1.1	1.5	18.6	78.8
V-4-3	11/17/2011	0.1	1.0	19.1	79.8
V-4-4	11/17/2011	0.0	0.1	19.9	80.0
V-4-5	11/17/2011	0.0	0.0	20.2	79.8
V-4-6	11/17/2011	0.0	0.0	20.2	79.8
GW-1	2/16/2012	59.1	42.9	0.4	0.0
GW-2	2/16/2012	8.5	7.4	16.8	67.3
GW-3	2/16/2012	0.1	0.7	19.8	79.4
GW-4	2/16/2012	63.7	34.0	0.8	1.5
GW-5	2/16/2012	0.0	9.3	7.2	83.5
GW-6	2/16/2012	0.0	0.4	21.2	78.4

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
GW-7	2/16/2012	0.0	2.1	18.7	79.2
GW-8	2/16/2012	0.0	5.2	15.8	79.0
GW-9	2/16/2012	0.0	1.5	19.2	79.3
GW-10	2/16/2012	0.0	6.7	7.4	85.9
GW-11	2/16/2012	0.0	7.0	12.7	80.3
GW-12	2/16/2012	0.0	0.1	21.5	78.4
GW-13	2/16/2012	54.9	43.7	0.7	0.7
GW-14	2/16/2012	1.3	3.9	14.4	80.4
GW-15	2/16/2012	0.0	3.3	17.0	79.7
GW-16	2/16/2012	0.0	1.4	19.8	78.8
GW-17	2/16/2012	0.0	0.5	20.8	78.7
BH-201	2/16/2012	0.0	0.1	21.3	78.6
BH-1301	2/16/2012	0.0	0.6	21.2	78.2
BH-1302	2/16/2012	13.1	10.7	16.8	59.4
BH-1303	2/16/2012	0.0	0.2	21.4	78.4
V-1-1	2/16/2012	6.4	4.9	19.7	69.0
V-1-2	2/16/2012	1.4	1.9	21.0	75.7
V-1-3	2/16/2012	0.1	0.1	21.0	78.8
V-1-4	2/16/2012	0.0	0.1	21.9	78.0
V-1-5	2/16/2012	0.0	0.1	21.9	78.0
V-1-6	2/16/2012	0.0	0.1	21.9	78.0
V-2-1	2/16/2012	1.5	0.9	20.9	76.7
V-2-2	2/16/2012	15.0	7.5	17.0	60.5
V-2-3	2/16/2012	0.0	0.1	21.6	78.3
V-2-10	2/16/2012	0.0	0.1	21.7	78.2
V-2-18	2/16/2012	0.1	0.1	21.8	78.0
V-3-1	2/16/2012	0.0	0.1	21.5	78.4
V-4-1	2/16/2012	1.2	1.3	20.1	77.4
V-4-2	2/16/2012	0.6	0.8	20.5	78.1
V-4-3	2/16/2012	0.5	0.6	20.7	78.2
V-4-4	2/16/2012	0.0	0.1	21.5	78.4
V-4-5	2/16/2012	0.0	0.2	21.3	78.5
V-4-6	2/16/2012	0.1	0.1	21.2	78.6
GW-1	6/7/2012	47.6	45.9	0.0	6.5
GW-2	6/7/2012	41.5	38.5	0.0	20.0
GW-3	6/7/2012	40.2	20.2	0.0	39.6
GW-4	6/7/2012	33.3	40.6	0.3	25.8
GW-5	6/7/2012	0.3	10.8	10.3	78.6
GW-6	6/7/2012	0.3	4.5	16.9	78.3
GW-7	6/7/2012	0.2	2.6	18.0	79.2
GW-8	6/7/2012	0.3	6.9	15.3	77.5
GW-9	6/7/2012	0.3	3.2	18.5	78.0
GW-10	6/7/2012	0.0	8.6	14.7	76.6
GW-11	6/7/2012	0.2	13.3	9.3	77.2
GW-12	6/7/2012	0.2	4.4	16.5	78.9
GW-13	6/7/2012	48.5	49.6	0.0	1.9
GW-14	6/7/2012	5.1	8.4	4.2	82.3
GW-15	6/7/2012	0.2	5.8	15.1	78.9
GW-16	6/7/2012	0.3	4.3	17.1	78.3
GW-17	6/7/2012	0.0	0.7	20.5	78.8
BH-3-01	6/7/2012	0.6	1.5	19.6	78.3
BH-13-01	6/7/2012	29.2	26.7	4.8	39.3
BH-13-02	6/7/2012	0.3	0.4	20.5	78.8
BH-13-03	6/7/2012	23.8	21.1	9.7	45.4
BH-13-04	6/7/2012	0.2	0.1	20.9	78.8
BH-13-05	6/7/2012	14.1	4.8	15.8	65.3
BH-13-06	6/7/2012	0.5	1.5	20.3	77.7
BH-13-07	6/7/2012	0.3	0.6	20.3	78.8
BH-13-08	6/7/2012	0.3	1.1	20.3	78.3
BH-14-01	6/7/2012	0.0	0.6	19.9	79.5
V-1-1	6/7/2012	29.0	25.1	9.5	36.4
V-1-2	6/7/2012	0.0	0.1	20.4	79.5
V-1-3	6/7/2012	0.2	0.5	20.2	79.1
V-1-4	6/7/2012	0.0	0.4	20.3	79.3

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
V-1-5	6/7/2012	0.3	3.3	16.7	79.7
V-1-6	6/7/2012	0.0	0.3	20.3	79.4
V-2-1	6/7/2012	5.8	2.6	18.7	72.9
V-2-2	6/7/2012	15.8	7.7	16.7	59.8
V-2-3	6/7/2012	0.0	0.5	20.1	79.4
V-2-10	6/7/2012	0.1	0.6	20.0	79.3
V-2-18	6/7/2012	0.0	1.1	19.4	79.5
V-3-1	6/7/2012	0.1	0.0	20.6	79.3
V-4-1	6/7/2012	0.4	0.5	20.5	78.6
V-4-2	6/7/2012	0.3	3.1	18.7	77.9
V-4-3	6/7/2012	0.1	3.2	18.3	78.4
V-4-4	6/7/2012	0.1	0.2	20.7	79.0
V-4-5	6/7/2012	0.2	0.0	20.9	78.9
V-4-6	6/7/2012	0.2	0.1	20.9	78.8
GW-1	8/23/2012	54.2	45.6	0.0	6.5
GW-2	8/23/2012	52.9	45.2	0.1	20.0
GW-3	8/23/2012	25.2	31.5	0.1	39.6
GW-4	8/23/2012	45.9	45.8	0.0	25.8
GW-5	8/23/2012	0.4	13.5	9.6	78.6
GW-6	8/23/2012	0.3	7.7	14.4	78.3
GW-7	8/23/2012	0.3	5.0	16.4	79.2
GW-8	8/23/2012	0.4	14.4	9.5	77.5
GW-9	8/23/2012	0.4	3.8	17.7	78.0
GW-10	8/23/2012	0.3	13.9	4.4	76.6
GW-11	8/23/2012	0.1	5.2	14.2	77.2
GW-12	8/23/2012	0.0	10.1	10.5	78.9
GW-13	8/23/2012	51.8	48.0	0.0	1.9
GW-14	8/23/2012	19.6	13.2	0.9	82.3
GW-15	8/23/2012	0.4	7.4	12.5	78.9
GW-16	9/6/2012	0.1	4.9	17.2	78.3
GW-17	9/6/2012	0.1	3.9	19.7	78.8
BH-2-01	8/23/2012	0.2	1.4	19.8	78.3
BH-13-01	8/23/2012	25.6	21.3	6.4	39.3
BH-13-02	8/23/2012	0.2	0.7	20.0	78.8
BH-13-03	8/23/2012	44.6	33.7	3.0	45.4
BH-13-04	8/23/2012	0.1	0.4	20.2	78.8
BH-13-05	8/23/2012	9.0	6.5	15.1	65.3
BH-13-06	8/23/2012	0.2	0.1	20.3	77.7
BH-13-07	8/23/2012	0.2	0.3	20.2	78.8
BH-13-08	8/23/2012	0.1	0.1	20.4	78.3
BH-14-01	8/23/2012	0.3	1.9	19.4	79.5
V-1-1	8/23/2012	44.4	34.9	9.6	36.4
V-1-2	8/23/2012	1.6	1.1	20.6	79.5
V-1-3	8/23/2012	0.2	0.0	21.4	79.1
V-1-4	8/23/2012	15.1	13.6	12.0	79.3
V-1-5	8/23/2012	0.4	0.1	21.1	79.7
V-1-6	8/23/2012	4.2	7.5	16.0	79.4
V-2-1	8/23/2012	19.8	11.1	14.5	72.9
V-2-2	8/23/2012	8.5	4.3	19.1	59.8
V-2-3	8/23/2012	0.2	0.0	21.4	79.4
V-2-10	8/23/2012	0.5	0.3	21.1	79.3
V-2-18	8/23/2012	0.4	0.0	21.2	79.5
V-3-1	9/6/2012	0.5	0.1	20.9	79.3
V-4-1	8/23/2012	0.2	0.2	20.3	78.6
V-4-2	8/23/2012	0.2	0.2	20.2	77.9
V-4-3	8/23/2012	0.1	0.1	20.4	78.4
V-4-4	8/23/2012	0.0	0.5	19.9	79.0
V-4-5	8/23/2012	0.0	0.2	20.4	78.9
V-4-6	8/23/2012	0.0	0.5	20.4	78.8
GW-1	11/8/2012	57.3	42.5	0	0.2
GW-2	11/8/2012	49.6	39	0	11.4
GW-3	11/8/2012	22	18.5	0.8	58.7
GW-4	11/8/2012	60.4	38.9	0	0.7
GW-5	11/8/2012	0	11.4	8.4	80.2

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Sample Location	Date	CH ₄ (%)	CO ₂ (%)	O ₂ (%)	Balance Nitrogen (%)
GW-6	11/8/2012	0	4.7	16	79.3
GW-7	11/8/2012	0	2.7	17.8	79.5
GW-8	11/8/2012	0	11.2	9.3	79.5
GW-9	11/8/2012	0	3	17.1	79.9
GW-10	11/8/2012	0	10.9	8.1	81
GW-11	11/8/2012	0	10.1	9.8	80.1
GW-12	11/8/2012	0	4.2	15.8	80
GW-13	11/8/2012	58	40.7	0.7	0.6
GW-14	11/8/2012	15.7	7.8	1.2	75.3
GW-15	11/8/2012	0	7.3	11.4	81.3
GW-16	11/8/2012	0	5.2	16	78.8
GW-17	11/8/2012	0	5.3	15.9	78.8
BH-2-01	11/8/2012	0	3	15.9	81.1
BH-13-01	11/8/2012	60	38.6	1.4	0
BH-13-02	11/8/2012	0	1.2	12.9	85.9
BH-13-03	11/8/2012	20.8	19	6	54.2
BH-13-04	11/8/2012	0	3.6	16.2	80.2
BH-13-05	11/8/2012	0	0.7	19.5	79.8
BH-14-01	11/8/2012	0	0.5	19.3	80.2
V-1-1	11/8/2012	38.8	33.5	5.3	22.4
V-1-2	11/8/2012	0.7	2.7	18.2	78.4
V-1-3	11/8/2012	0	0.1	20.6	79.3
V-1-4	11/8/2012	0	0.1	20.7	79.2
V-1-5	11/8/2012	0	0.1	20.6	79.3
V-1-6	11/8/2012	0	0.3	20.5	79.2
V-2-1	11/8/2012	0	0.1	20.2	79.7
V-2-2	11/8/2012	4.7	2.4	18	74.9
V-2-3	11/8/2012	0	0.1	20.6	79.3
V-2-10	11/8/2012	0	0.1	20.6	79.3
V-2-18	11/8/2012	0	0.1	20.6	79.3
V-3-1	11/8/2012	0	0.1	20.2	79.7
V-4-1	11/8/2012	0.4	0.5	20.1	79
V-4-2	11/8/2012	0	0.1	20.3	79.6
V-4-3	11/8/2012	0	0.8	19.6	79.6
V-4-4	11/8/2012	0	0.1	20.2	79.7
V-4-5	11/8/2012	0	0.5	19.8	79.7
V-4-6	11/8/2012	0	0.1	19.8	80.1
Storage Shed	11/8/2012	0	0	20.7	79.3
GW-1	2/21/2013	53.5	41.7	0.1	4.7
GW-2	2/21/2013	26.1	21.7	0.0	52.2
GW-3	2/21/2013	19.0	7.5	1.5	72.0
GW-4	2/21/2013	60.0	37.0	0.0	3.0
GW-5	2/21/2013	0.1	7.4	10.7	81.8
GW-6	2/21/2013	0.1	2.7	18.7	78.5
GW-7	2/21/2013	0.1	1.7	20.7	77.5
GW-8	2/21/2013	0.1	5.7	13.4	80.8
GW-9	2/21/2013	0.2	1.5	20.7	77.6
GW-10 ¹²	2/21/2013	--	--	--	--
GW-11	2/21/2013	0.1	0.5	21.9	77.5
GW-12	2/21/2013	0.2	2.0	20.2	77.6
GW-13	2/21/2013	56.5	42.6	0.8	0.1
GW-14	2/21/2013	14.3	2.9	3.3	79.5
GW-15	2/21/2013	0.1	5.0	15.4	79.5
GW-16	2/21/2013	0.1	3.1	19.4	77.4
GW-17	2/21/2013	0.1	4.4	16.9	78.6
BH-14-01	2/21/2013	0.1	0.1	22.1	77.7
Storage Shed	2/21/2013	0.0	0.1	16.9	83.0

See Notes on Page 21.

Georgia-Pacific, LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
King Highway Landfill Operable Unit 3
Landfill Gas Monitoring Program

Table 2 - Summary of Post-Closure Landfill Gas Monitoring Results

Notes:

1. Landfill gas monitoring results provided by CTI and Associates, Inc. using a GEM™ 2000 portable gas analyzer from April 27, 2003 to May 21, 2004.
2. Landfill gas monitoring results provided by Golder Associates, Inc. using a GEM™ 500 portable gas analyzer from September 29, 2004 to May 8, 2006, November 8, 2006, May 10, 2007, and August 6, 2008.
3. Landfill gas monitoring results provided by Golder Associates, Inc. using a GEM™ 2000 portable gas analyzer on September 7, 2006, February 8, 2007, August 8, 2007, October 31, 2007, May 15, 2008, November 5, 2008, February 5, 2009, May 21, 2009, August 19, 2009, and November 12, 2009.
4. Landfill gas monitoring results provided by ARCADIS using a GEM™ 500 portable gas analyzer on February 19, 2010, May 27, 2010, August 26, 2010, November 19, 2010, February 28, 2011, May 12, 2011, August 18, 2011, November 17, 2011, February 16, 2012, June 7, 2012, August 23, 2012, September 6, 2012, and November 8, 2012.
5. Landfill gas monitoring results provided by ARCADIS using a GEM™ 2000 portable gas analyzer on February 16, 2012.
6. On February 8, 2006, three other borings were attempted at the location of BH-201, but the boreholes were too wet to provide an accurate reading.
7. The water level at the location of the borehole was too high to provide an accurate reading.
8. On February 8, 2007, methane concentrations were detected above the lower explosive limit at GW-3; however, temporary boreholes were not installed to delineate the extent of the methane due to a health and safety risk created by snow covered rocks along the river.
9. On February 8, 2007, the valve on GW-6 was frozen and the cap could not be removed. The concentrations presented for GW-6 were obtained from a temporary borehole, which was installed directly next to well.
10. An additional temporary borehole(s) was not installed west of permanent gas probe GW-11 to delineate the extent of methane concentrations above the LEL toward the adjacent Kalamazoo Metal Recyclers, Inc. property due to the amount of debris located underneath the ground surface along the western property line of the KHL OU.
11. Due to rapid fluctuations in the gas concentration readings on the GEM™ 2000 portable gas analyzer, the concentrations for all parameters (i.e., CH₄, O₂, and CO₂) could not be determine from the same reading, producing a balance nitrogen concentration for GW-1 less than zero.
12. As verbally directed by MDEQ in the field, permanent gas probe GW-10 was not monitored due to low readings in GW-5, GW-6, and GW-7.
13. CH₄ = Methane.
14. CO₂ = Carbon Dioxide.
15. O₂ = Oxygen.
16. GW = Permanent gas monitoring probe.
17. BH = Temporary borehole.
18. V = Permanent gas vent.
19. -- = gas vent was not monitored.



Figures



